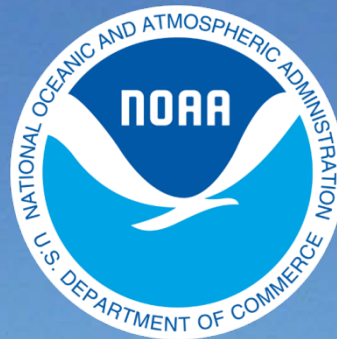


BookletChart™

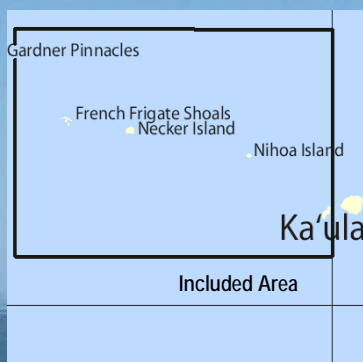
Ni'ihau to French Frigate Shoals

NOAA Chart 19016

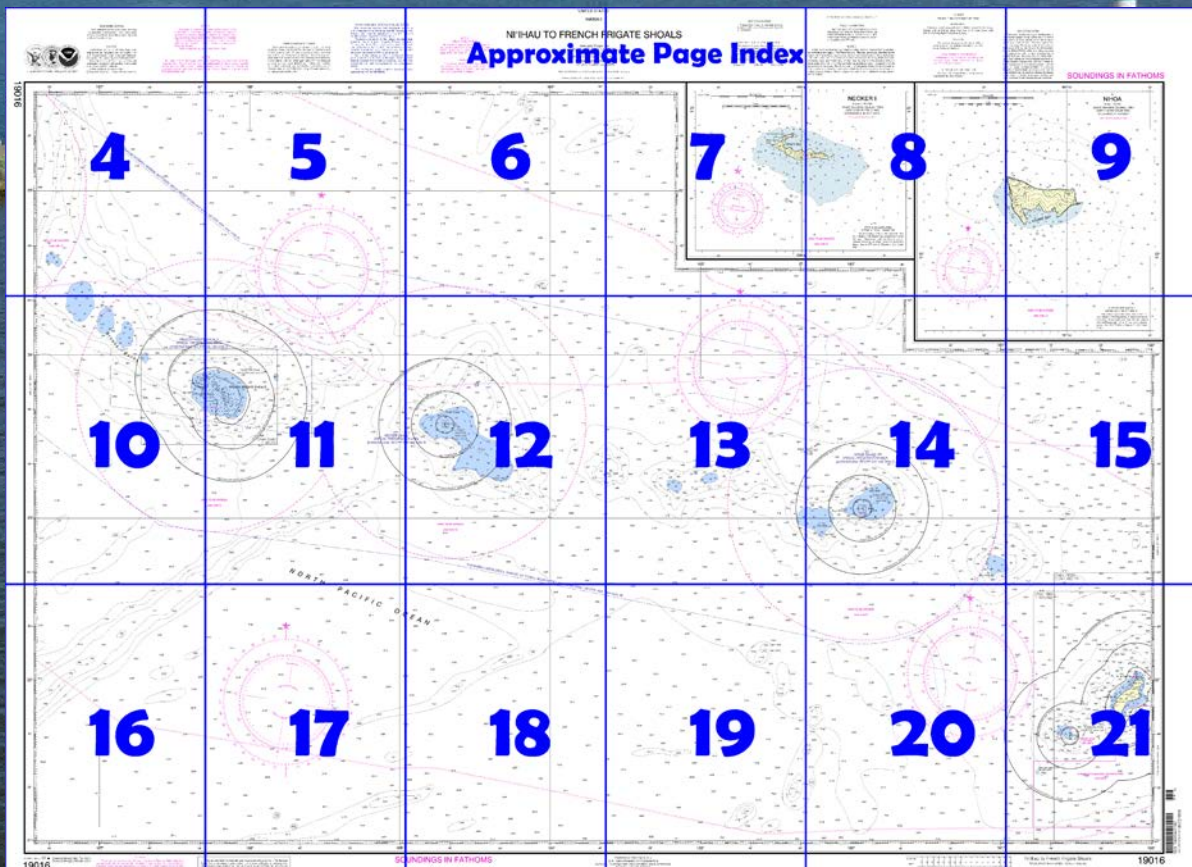


A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=19016>.



(Selected Excerpts from Coast Pilot)

Nihoa (23°03'N., 161°55'W.), a barren, rocky, and uninhabited island, is about 120 miles NW of Ni'ihau. The island was discovered by Captain Douglas of the British vessel IPHIGENIA on April 13, 1790. The low, stone walls of ancient Polynesian ceremonial sites still remain on the island. The island is inhabited by a number of species of sea birds and two extremely rare land birds.

Nihoa is about 0.8 mile long and 0.2 mile wide. The E, N, and W sides are high and precipitous; the S side is much lower and its slopes are more gradual. **Millers Peak**, 910 feet high and the highest point on the island, is near the NW end. **Tanager Peak**, 874

feet high, is near the NE end. The SE and SW sides of the island terminate at points on either side of **Adams Bay**. In the bay are three small bights; the westernmost has a sand beach, and the shores of the other two are rocky ledges. There is deep water, close to all sides. The safest anchorages are between the 15- and 20-fathom curves W and SW of the island, but the holding ground is poor. The middle cove of Adams Bay probably affords the best landing, but the surge is considerable and great care must be taken in landing anywhere on the island. During heavy NW weather landing is very dangerous. A steep trail leads from the middle cove to the top of the bluff. At the foot of the bluff is a seepage of water that is not suitable for drinking purposes except in emergencies.

Currents.—The prevailing current sets W in the vicinity of Nihoa. Current observations taken about 0.2 mile W of the island show a nontidal flow of about 0.2 knot setting WSW combined with a tidal current of nearly 0.5 knot at strength setting N and S. The N strength of the tidal current occurs about 6 hours after the local transit of the moon and the S strength at about the time of local transit. The velocity measured was nearly 2 knots and set S.

Nihoa is near the SW end of a bank which is about 18 miles long in a NE-SW direction 10 miles wide and has depths of 14 to 36 fathoms, except for a reported depth of 6½ fathoms at the westernmost extremity. Another bank, the center of which is about 18 miles WSW from Nihoa, is about 14 miles long in an E-W direction, 9 miles wide, and has depths of 15 to 25 fathoms, except for an 11-fathom depth about 2 miles SE of its center, and a 14-fathom depth about 6 miles SSE of its center, reported in 1968. A bank about 54 miles SE of Nihoa has a least depth of 32 fathoms except for a reported depth of 19 fathoms at its S end; the positions of the reported depths are approximate and caution is advised. The two banks 57 and 70 miles W of Nihoa have least depths of 29 and 33 fathoms, respectively. The edges of the bank slope steeply to much greater depths. A 9-fathom shoal is about 5 miles NW of the E bank.

Necker Island (23°34'N., 164°42'W.) is 158 miles W from Nihoa. It was discovered by La Perouse on November 1, 1786, and was annexed to Hawaii in 1895. The island, which might well be called a rock, is uninhabited, but, like Nihoa, shows unmistakable evidence of ancient habitation. It is the home of countless sea birds.

About 0.7 mile long and less than 0.2 mile wide, Necker Island is made up entirely of lava. There are four peaks or hills, one near each end and two between. The highest, **Summit Hill**, 277 feet high, is near the middle of the island. **Annexation Hill**, 249 feet high, at the W end of the island, is separated from the other hills by a low saddle and, when seen from a distance appears detached.

Northwest Cape, a rocky spur extending N from the W end of the island, is joined to the rest of the island by a low isthmus over which the seas break in rough weather. On the W side of the cape is **West Cove**, and on the E side is **Shark Bay**. Off the E end of the island are several low, detached rocks. A depth of 5 fathoms has been reported 0.5 mile S of Necker Island where general depths are 10 to 12 fathoms. Vessels can anchor in depths of about 12 fathoms 0.5 mile S of the SW point of the island, but the island is so small that it affords little protection. West Cove and Shark Bay are the landing places, and are usually very hazardous and there are times when it is impossible to land anywhere on the island. During heavy NW weather landing at West Cove is very dangerous. Shark Bay, open to the NE trades, is usually filled with breakers.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Honolulu	Commander	
	14th CG District	(808) 535-3333
	Honolulu, HI	

Table of Selected Chart Notes

NIHOA

Scale 1:20,000
World Geodetic System 1984
(North American Datum 1983)
SOUNDINGS IN FATHOMS

HEIGHTS
Heights in feet above Mean High Water.

Scale 1:20,000
World Geodetic System 1984
(North American Datum 1983)
SOUNDINGS IN FATHOMS

Mercator Projection
Scale 1:663,392 at Lat 23°00'
Astronomic Datum
(Reference Horizontal Datum Note)
SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

HORIZONTAL DATUM
The horizontal reference datum for this chart is Astronomic Datum, except within the chart insets for Necker and Nihoa Islands, and within the areas of the gray chart outlines indicating larger scale chart coverage. The large scale chart insets of Necker and Nihoa Islands are World Geodetic System 1984 (WGS84), which for charting purposes is considered equivalent to North American Datum of 1983 (NAD83). The areas within the limits of the gray chart outlines can be considered equivalent to World Geodetic System 1984 (WGS84), which for charting purposes is considered equivalent to North American Datum of 1983 (NAD83). The charted features within the limits of the gray chart outlines were shifted from various local datums by means of geo-referenced satellite imagery and have not been confirmed by land-based geodetic methods.

PAPAHĀNAUMOKUĀKEA
MARINE NATIONAL MONUMENT
The entire area of this inset lies within the boundaries of the Papahānaumokuākea Marine National Monument and the Nihoa Island Special Preservation Area. These are protected areas. See 50 CFR 404 or Chapter 2, U.S. Coast Pilot 7.

LOCAL MAGNETIC DISTURBANCE
Differences of as much as 33° from the normal variation have been observed on Nihoa and 22° on Necker Island.

For Symbols and Abbreviations see Chart No. 1

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
○(Accurate location) ◐(Approximate location)

PAPAHĀNAUMOKUĀKEA
MARINE NATIONAL MONUMENT
17
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NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.
Kokee, HI KBA-99 162.40 MHz

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

HAWAIIAN ISLANDS NATIONAL WILDLIFE REFUGE
The Hawaiian Islands from longitude 161° W to 176° W are part of the Hawaiian Islands National Wildlife Refuge, and under the jurisdiction of the U.S. Fish and Wildlife Service, Department of the Interior.
The islands and atolls in the refuge include Nihoa, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll. National Wildlife Refuge System regulations pertaining to these islands and atolls are contained in CFR 50, parts 25-32.
Entry to the refuge is strictly prohibited without prior approval from the Refuge Manager, Pacific Remote Islands National Wildlife Refuge Complex, U.S. Fish and Wildlife Service, 300 Ala Moana Blvd., Honolulu, Hawaii 96850.
The restrictions apply to all civilian and military agencies as well as individuals.

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

PARTICULARLY SENSITIVE SEA AREA
The Particularly Sensitive Sea Area (PSSA) is indicated by a dashed green limiting line highlighted with a green screened band or by a green screened band used in conjunction with the line symbol for other limits with which the PSSA coincides. A PSSA is an environmentally sensitive area in which and around which mariners should exercise extreme caution. See U.S. Coast Pilot volumes for information regarding this area.

NOTE C
AREA TO BE AVOIDED
All vessels solely in transit should avoid the area (MSC IMO SN.1/Circ.263).

NOTE E
SHIP REPORTING SYSTEM
The following vessels entering or departing any U.S. port of place and in transit through the reporting area are required to report into the System: all vessels 300 gross tons or greater and all vessels in the event of a developing emergency. The following vessels in transit through the reporting area should report into the System: all vessels 300 gross tons or greater, fishing vessels, and all vessels in the event of a developing emergency. See IMO SN.1, Circ. 273. Information concerning the Ship Reporting System is also published in the U.S. Coast Pilot 7, Chapters 2 and 14, and updated through Notices to Mariners. Information may also be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, or at the Office of the District Engineer, Corps of Engineers, in Honolulu.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii or at the Office of the District Engineer, Corps of Engineers in Honolulu, Hawaii.
Refer to charted regulation section numbers.

NOTE D
The Areas to be Avoided and the Particularly Sensitive Sea Area have been charted in their true positions. The limits of the Papahānaumokuākea Marine National Monument have been slightly offset for clarity. The inner limit of the Ship Reporting System Area is co-linear with the outer limits of the Areas to be Avoided and is not depicted.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the U.S. Coast Guard and National Geospatial-Intelligence Agency, and other sources.

2640 SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

NOTE X
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

NOTE B
Boundary limits of Submerged Submarine Operating Areas are shown by a solid magenta line. As submarines may be submerged in these areas, vessels should proceed with caution. During torpedo practice firing, all vessels are cautioned to keep well clear of Naval Target Vessels flying a large red flag at the highest masthead.

Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii or at the Office of the District Engineer, Corps of Engineers in Honolulu, Hawaii.
Refer to charted regulation section numbers.

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RADAR REFLECTORS

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NOTE C

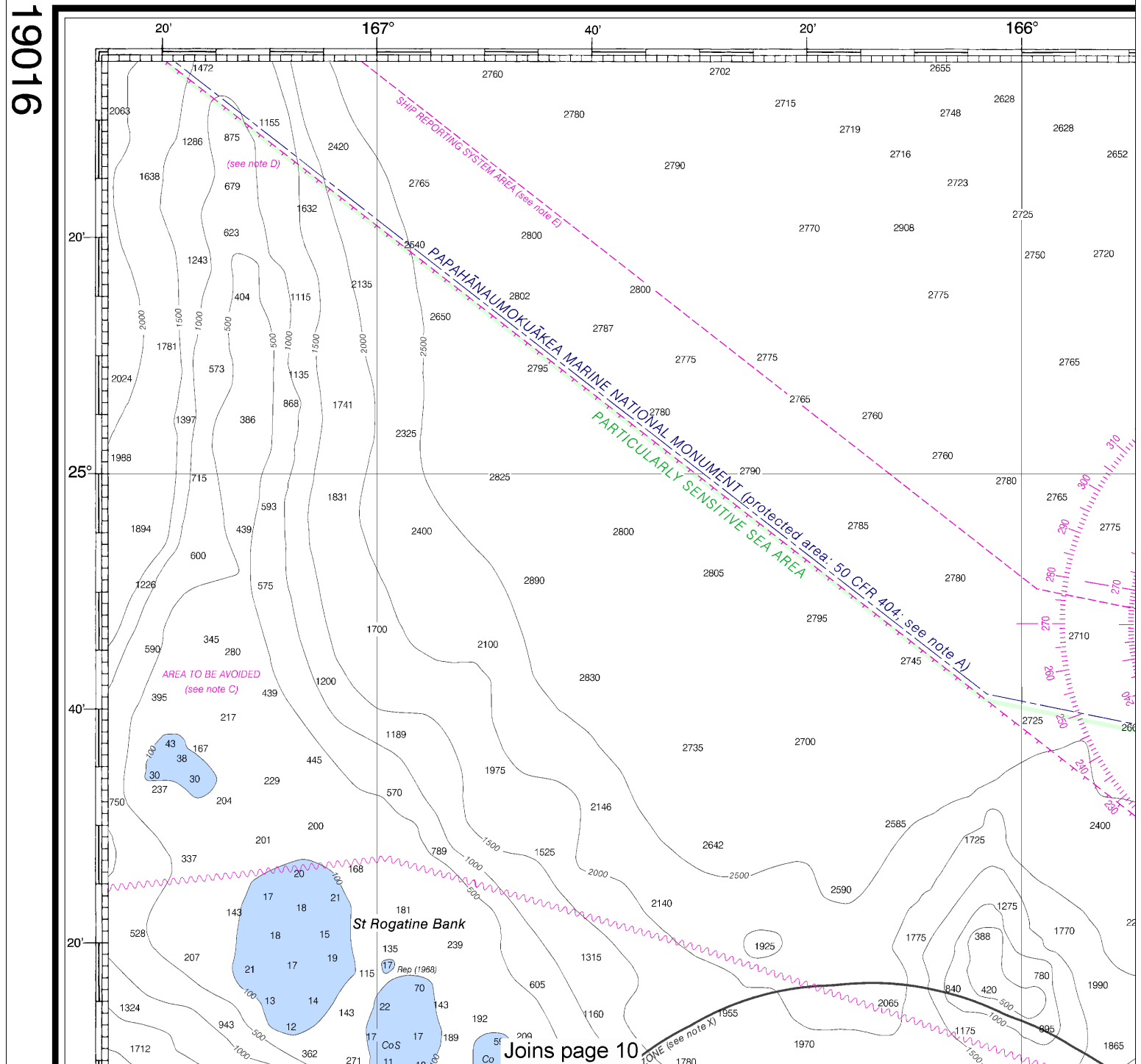
AREA TO BE AVOIDED

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THE NATION'S CHARTMAKER SINCE 1807

19016



Joins page 10

4

Note: Chart grid lines are aligned with true north.

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PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

176° W are part of the Hawaiian Islands National Wildlife Refuge, and under the jurisdiction of the U.S. Fish and Wildlife Service, Department of the Interior.

The islands and atolls in the refuge include Nihoa, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll. National Wildlife Refuge System regulations pertaining to these islands and atolls are contained in CFR 50, parts 25-32.

Entry to the refuge is strictly prohibited without prior approval from the Refuge Manager, Pacific Remote Islands National Wildlife Refuge Complex, U.S. Fish and Wildlife Service, 300 Ala Moana Blvd., Honolulu, Hawaii 96850.

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WARNING

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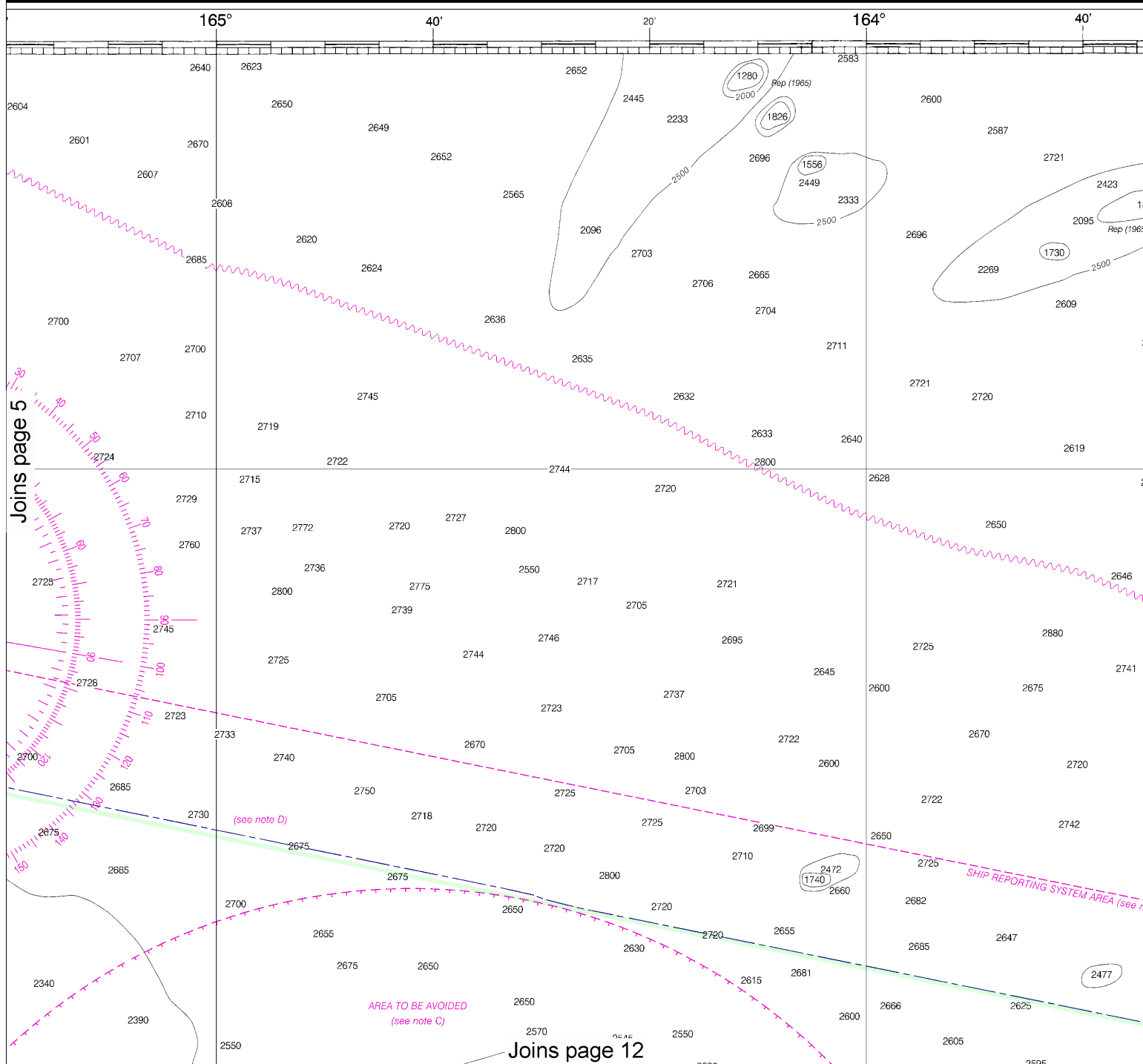
Mercator Projection
Scale 1:663,392 at Lat 23°0'

Astronomic Datum
(Reference Horizontal Datum Note)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.noaa.gov

Formerly C&GS 4181, 1st Ed., Mar. 1941 C-1941-550



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Note: Chart grid lines are aligned with true north.

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AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

NOAA WEATHER RADIO BROADCASTS

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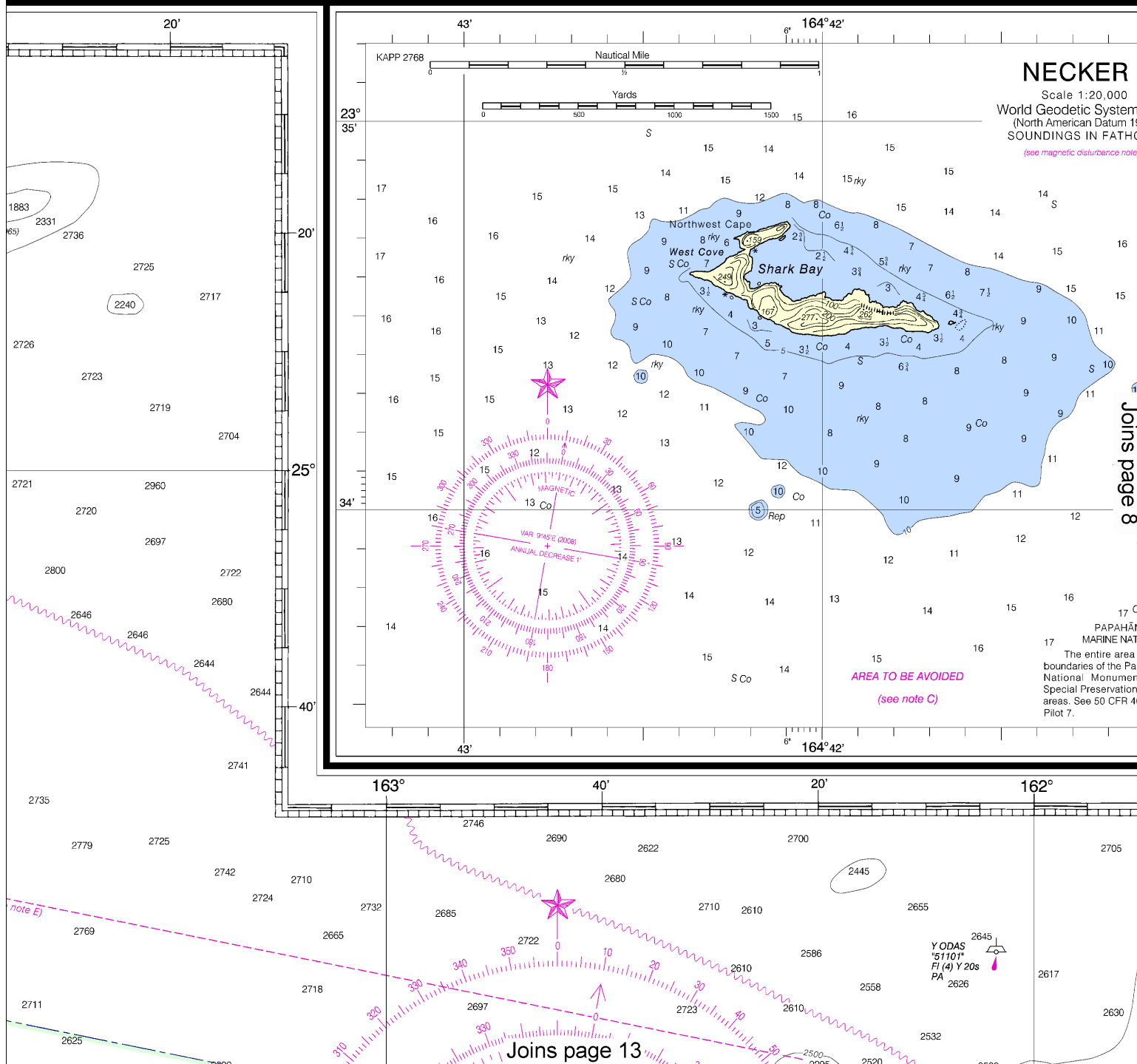
Kokee, HI KBA-99 162.40 MHz

POLLUTION REPORTS

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NOTE X

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This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4812 11/27/2012,
NGA Weekly Notice to Mariners: 4912 12/8/2012,
Canadian Coast Guard Notice to Mariners: n/a.

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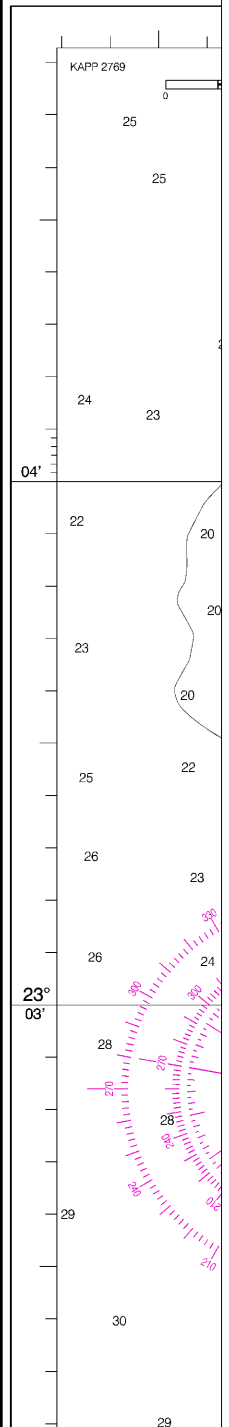
Kokee, HI	KBA-99	162.40 MHz
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SUPPLEMENTAL INFORMATION
Consult U.S. Department of Health and Human Services
supplemental information at <http://www.hhs.gov/ashpr/>



Joins page 7

Joins page 14

Note: Chart grid lines are aligned with true north.

et above Mean High Water.

AUTHORITIES

raphy by the National Ocean Service, Coast
ata from the U. S. Coast Guard and
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CAUTION

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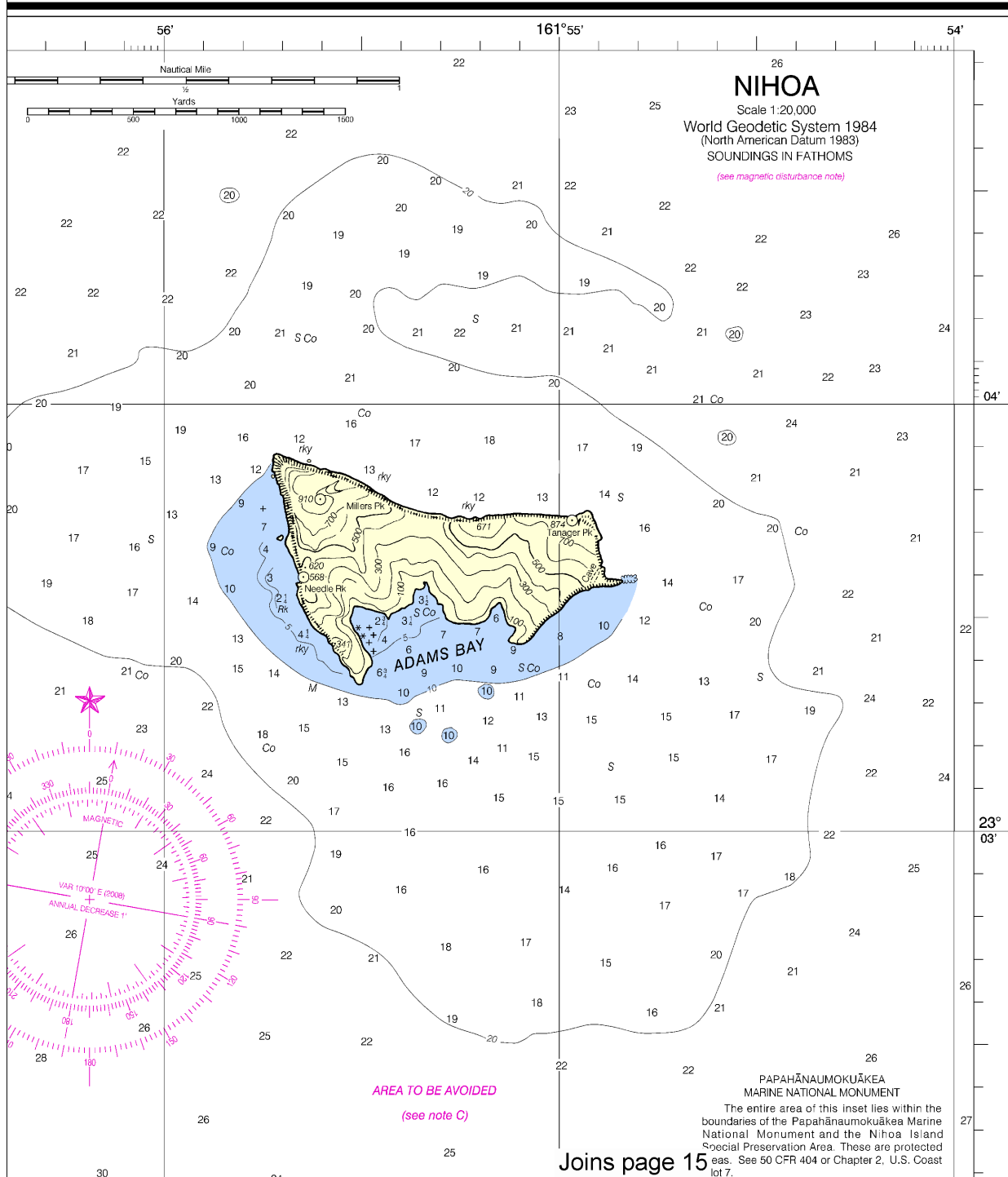
MENTAL INFORMATION

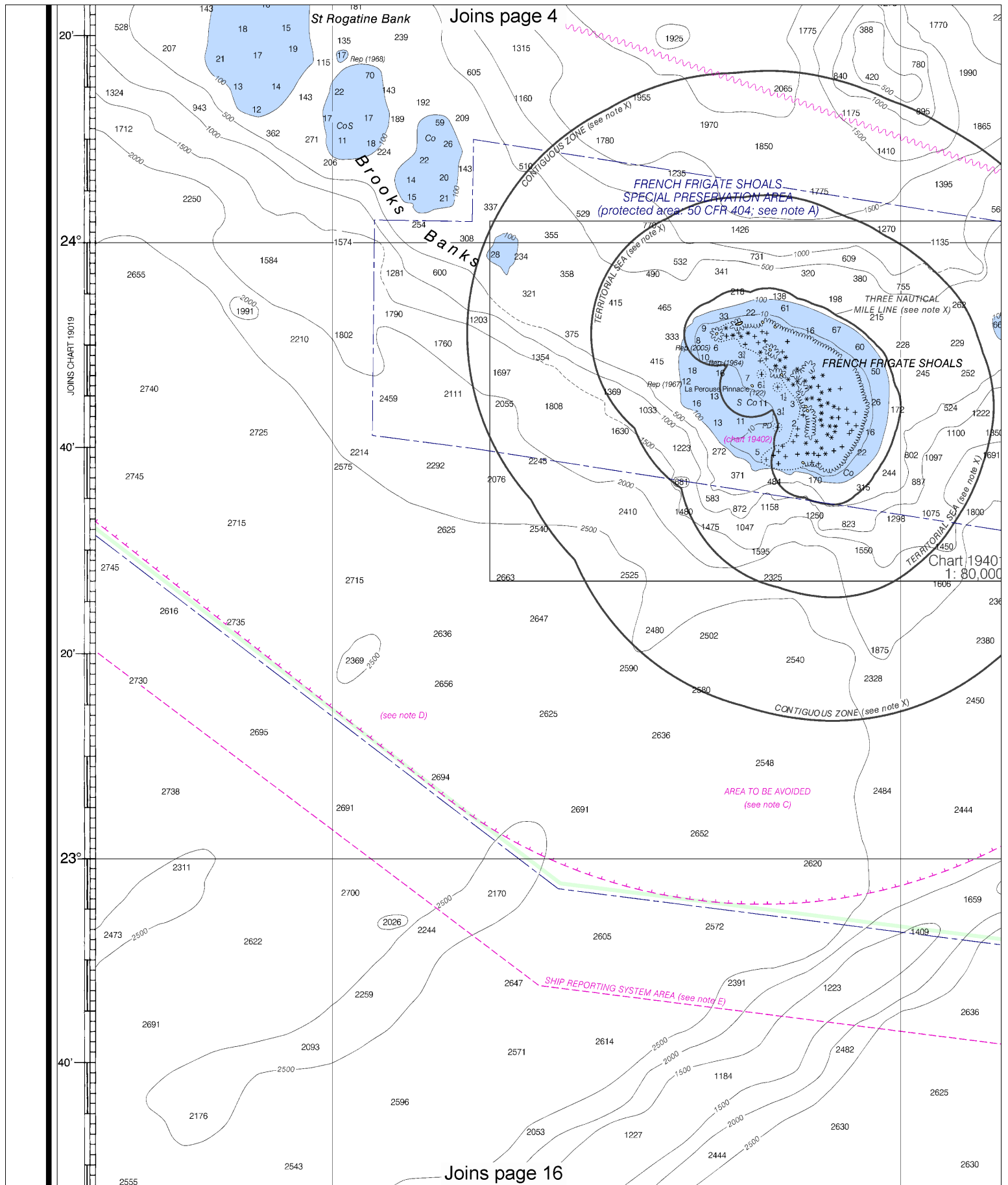
S. Coast Pilot 7 for important
information.

HORIZONTAL DATUM

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SOUNDINGS IN FATHOMS

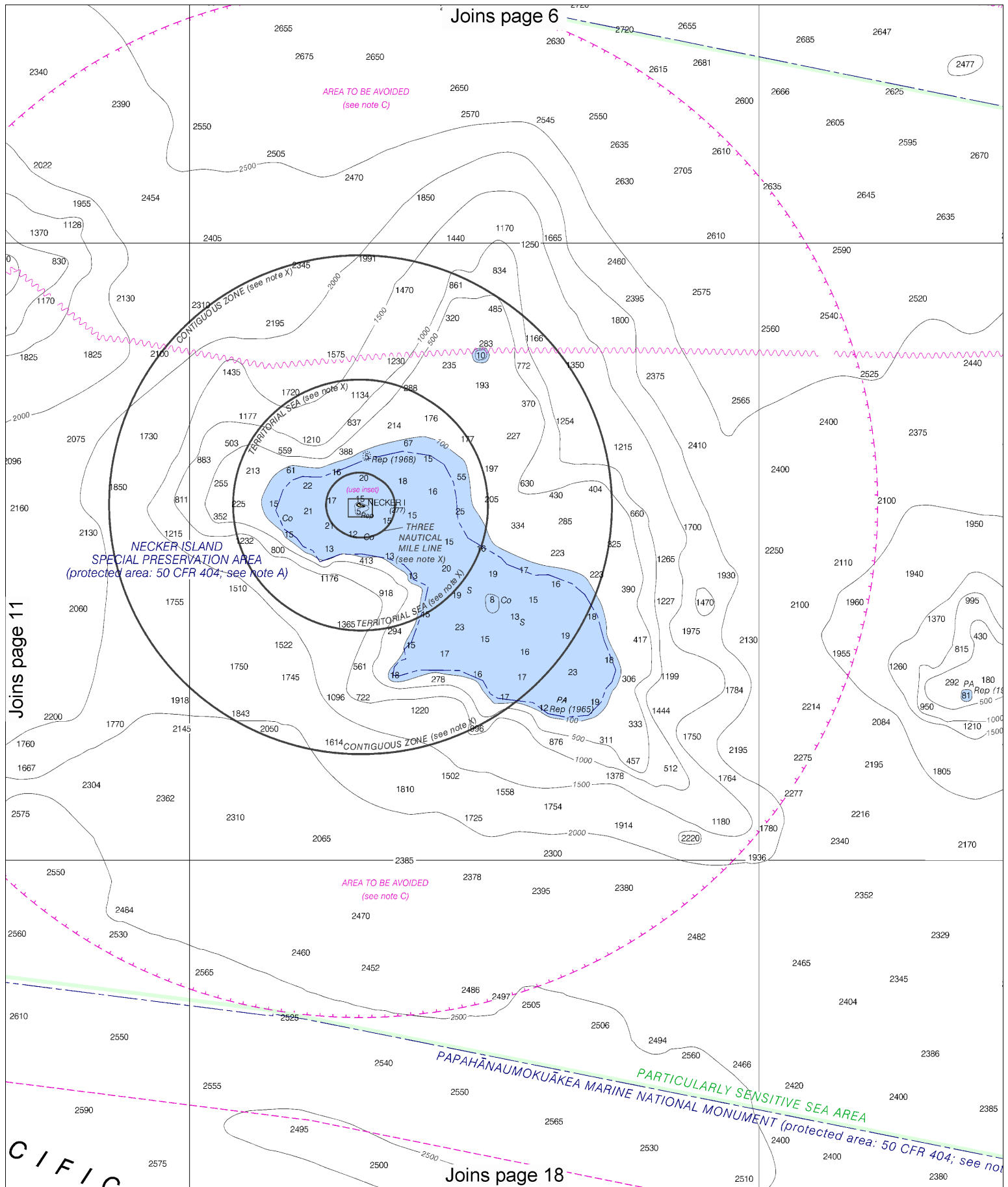


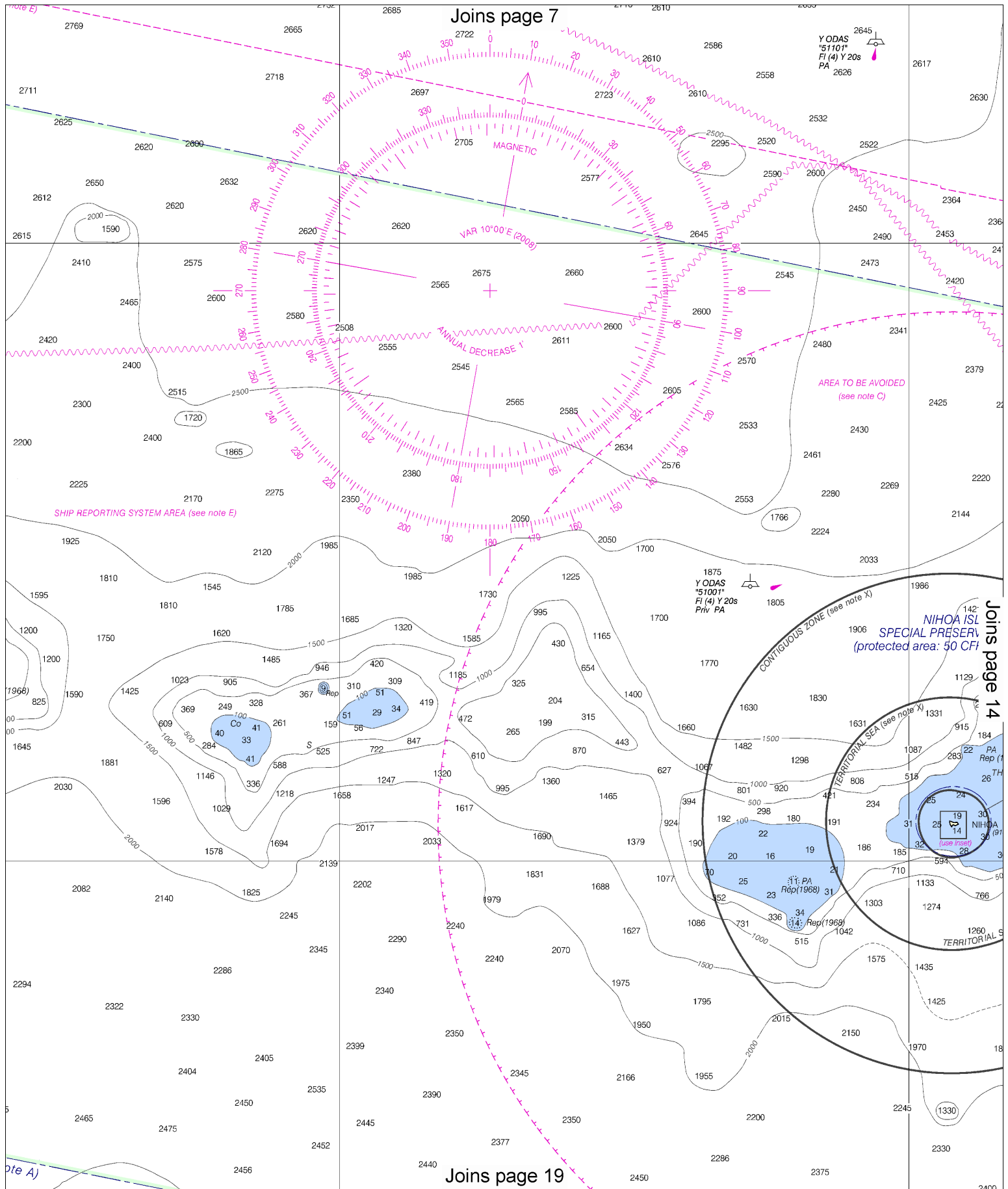


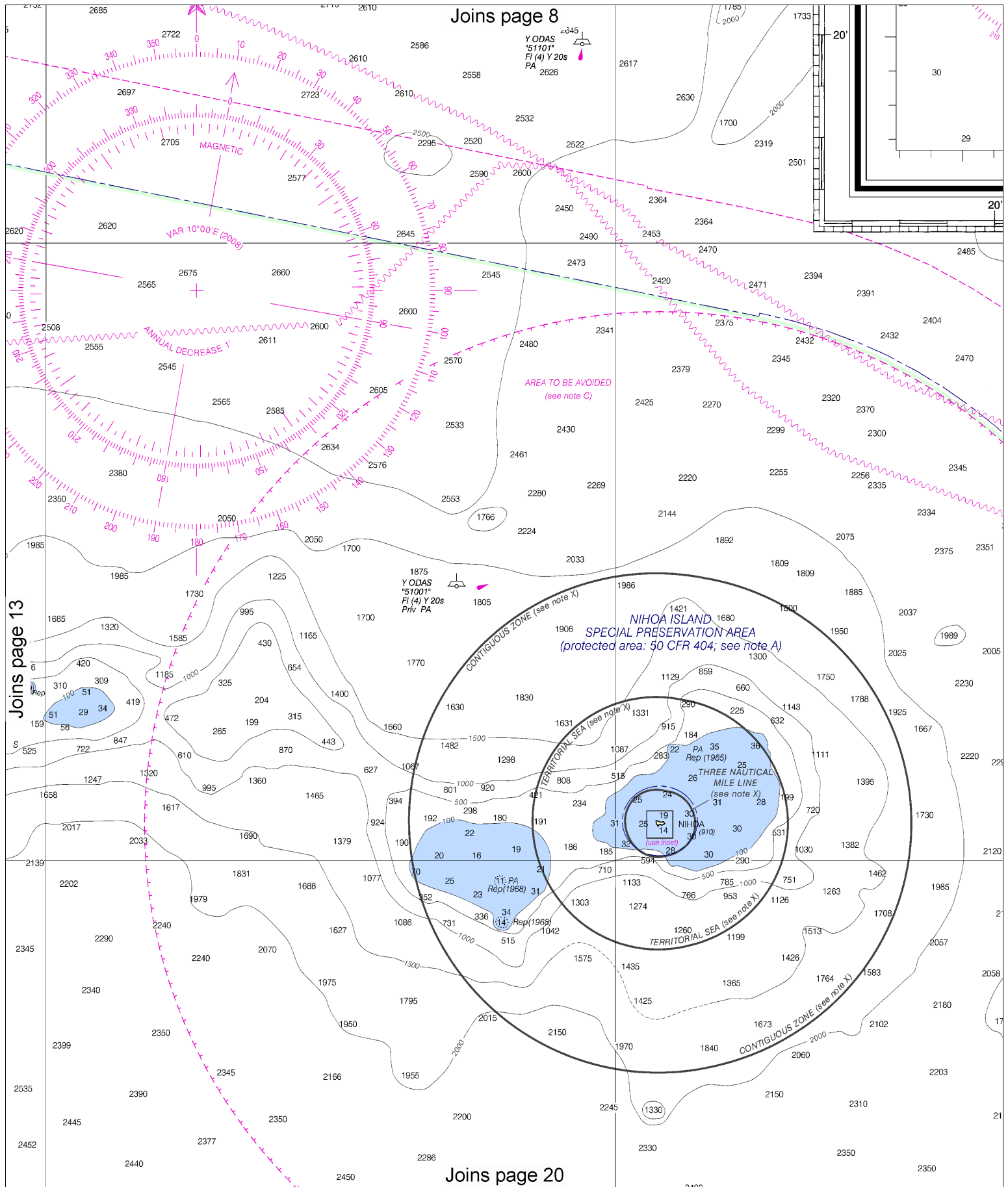
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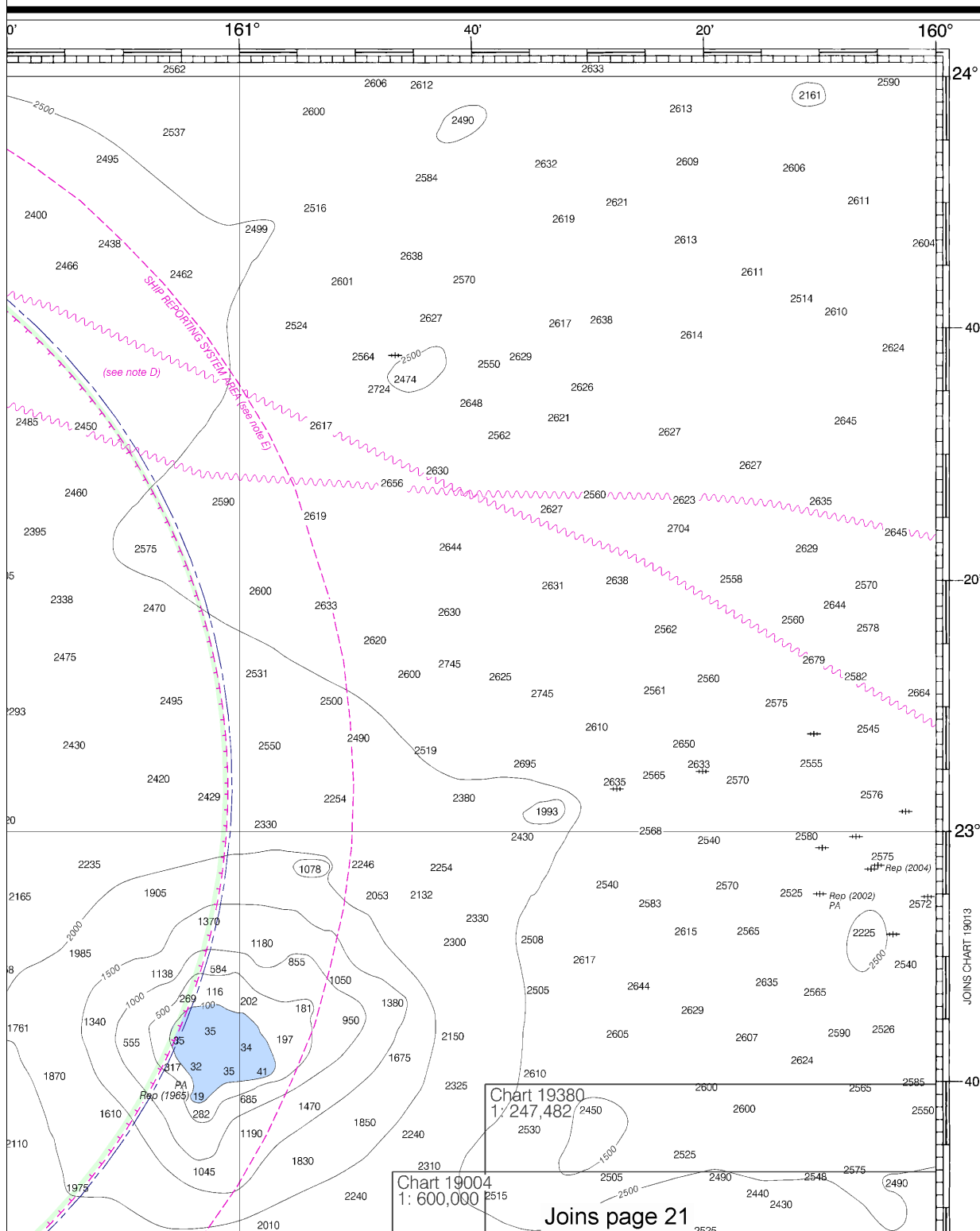
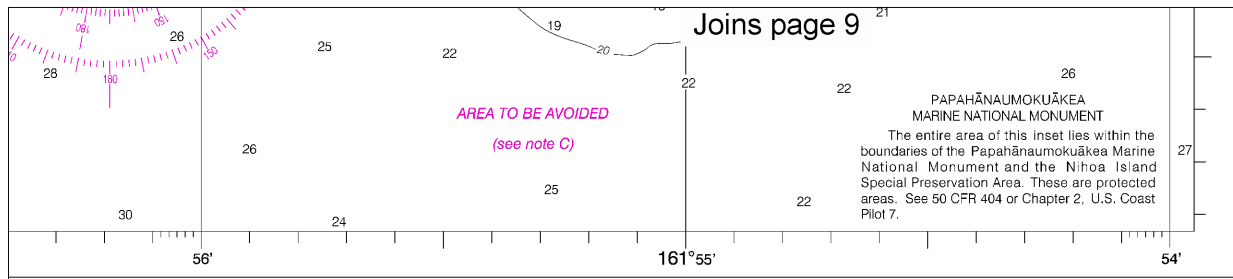
Note: Chart grid lines are aligned with true north.

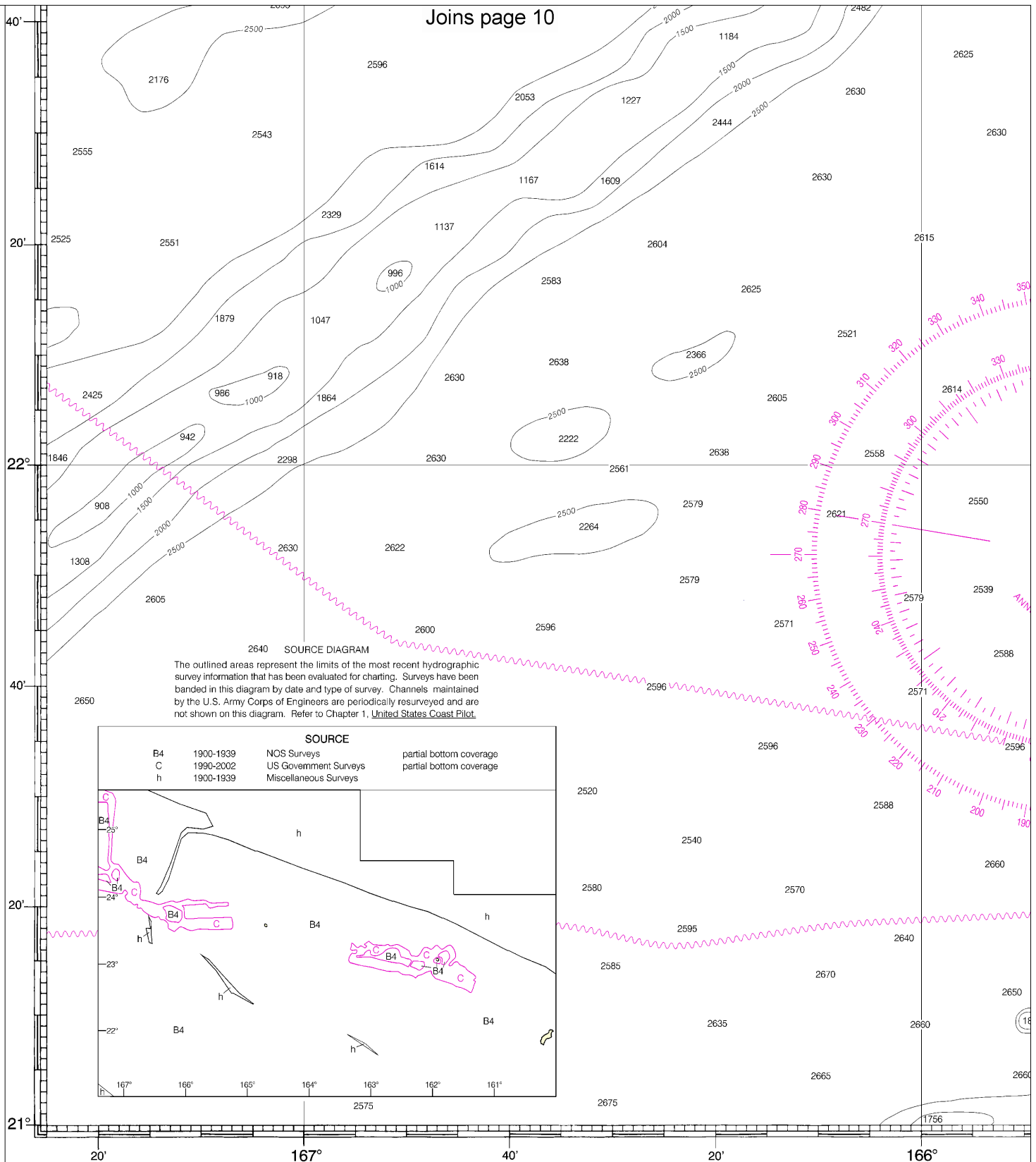












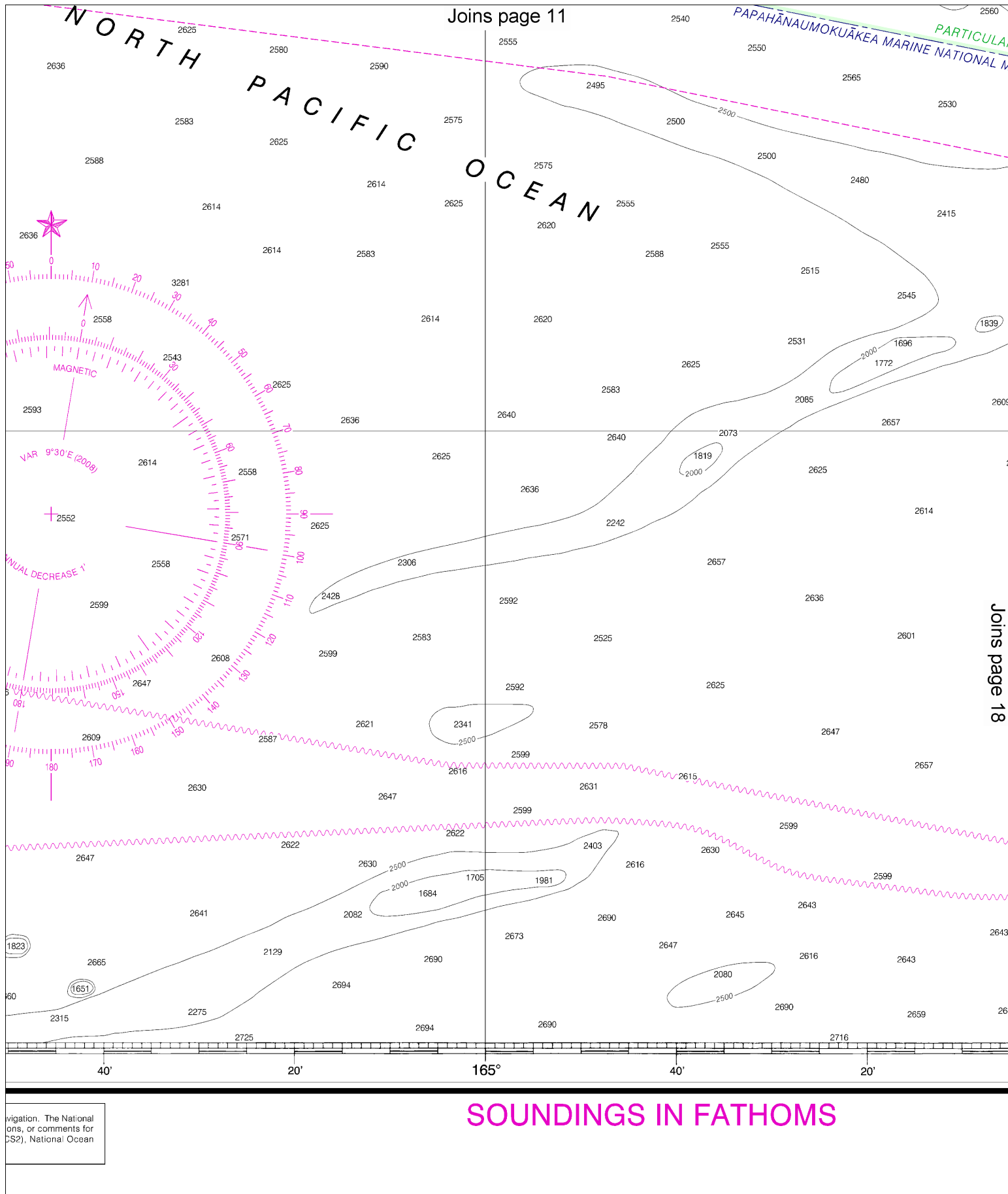
12th Ed., Apr. / 08 ■ Corrected through NM Apr. 12/08
Corrected through LNM Apr. 08/08

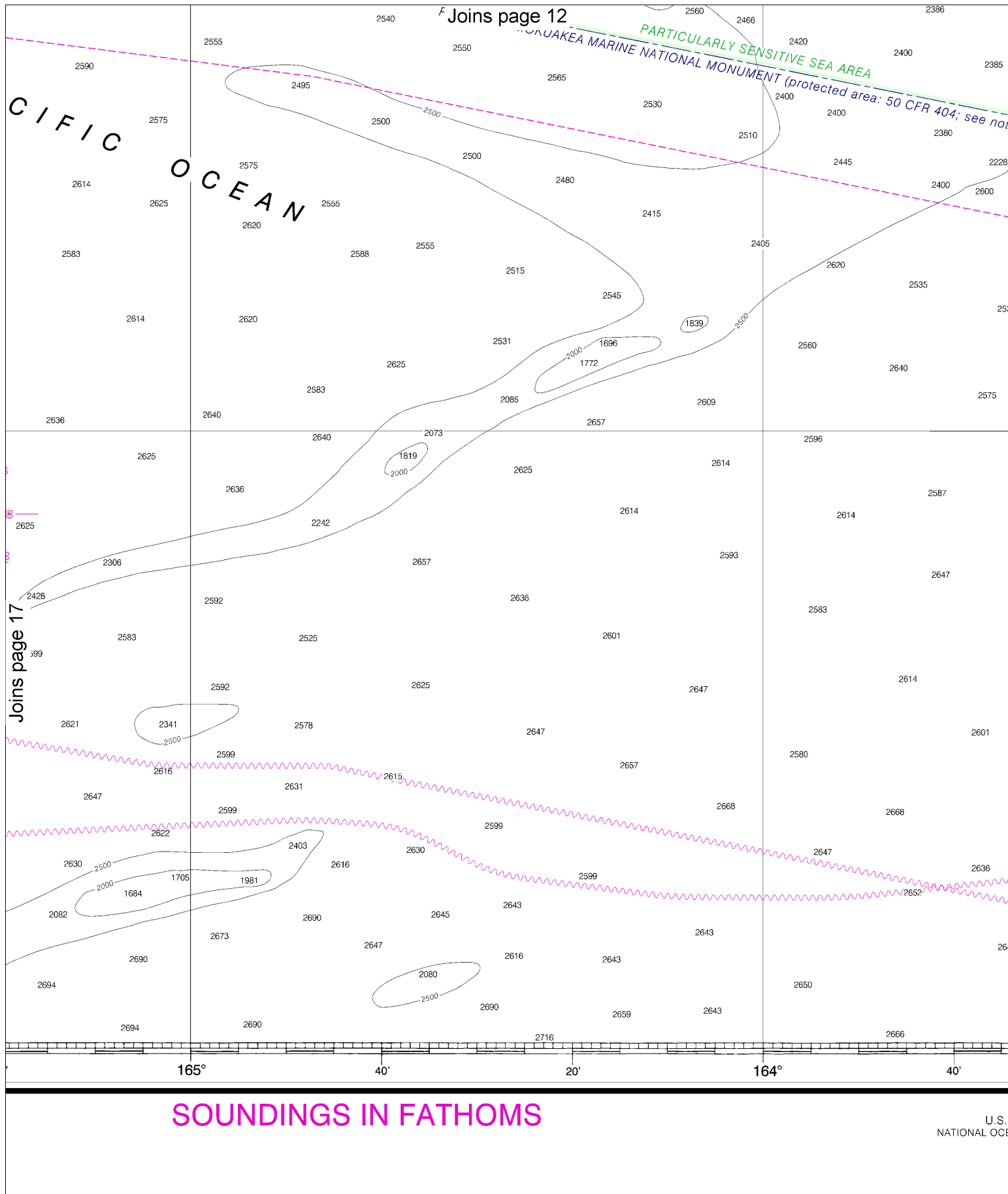
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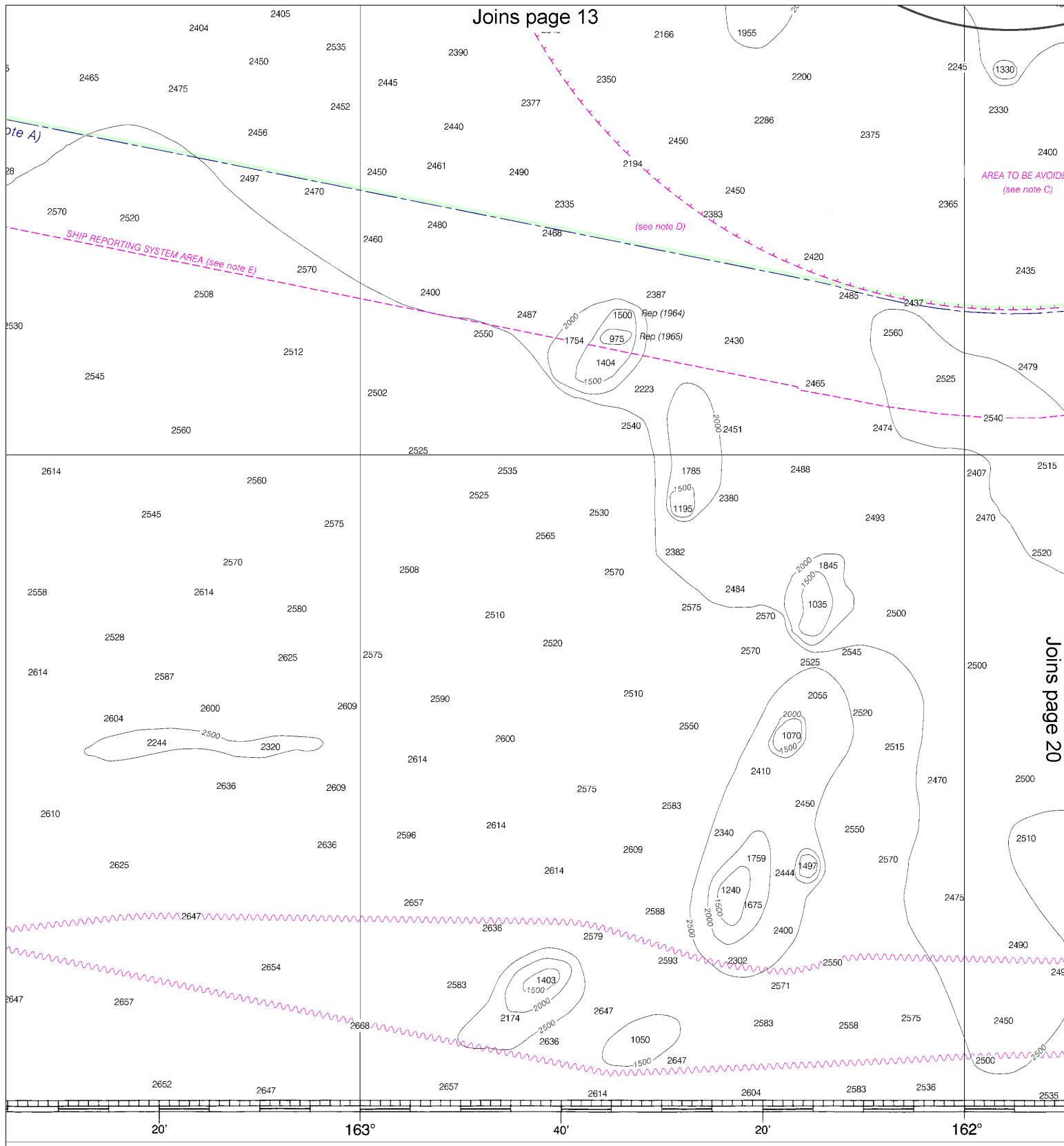
CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

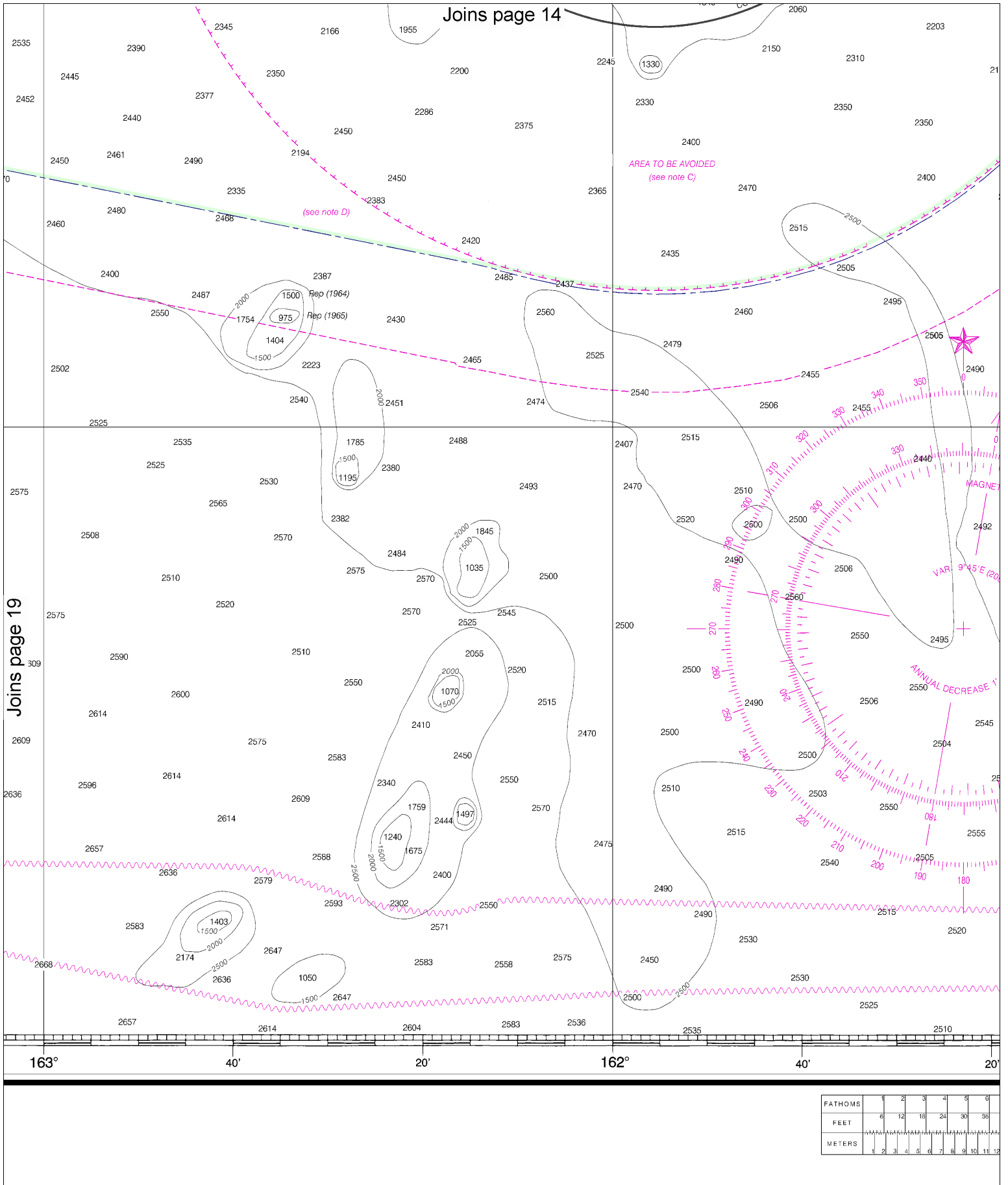
This nautical chart has been designed to promote safe navigation. The U.S. Coast Guard encourages users to submit corrections, additional information, or comments to the Chief, Marine Chart Division (N/CS), U.S. Coast Guard, Silver Spring, Maryland 20910-3282.







Published at Washington, D.C.
 U.S. DEPARTMENT OF COMMERCE
 NAUTIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE
 COAST SURVEY





VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

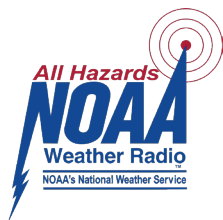
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Online chart viewer	—	http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



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NOAA's Office of Coast Survey



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